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MAY
1949

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See Below and Page 14

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EDITORIAL



AMATEUR ADVISORY COMMITTEES

In all spheres of life there is some system of maintaining orderly conduct, and in this regard Amateur Radio is no exception. We could recall the statement by the noted American statesman Abraham Lincoln who once said, "Government of the people, by the people and for the people."

The Amateurs in Australia are able to govern themselves by the Amateur Advisory Committees which have been created in each State and under its control by the Postmaster General's Department and, as the name implies, the Committee functions in an advisory rather than a disciplinary capacity.

So that every licenced Amateur may have representation on this Committee its membership is composed of W.I.A. and non-W.I.A. personnel.

Each Committee, with the authority of the Department, whenever necessary, issues a notification to any licensee who has transgressed by a breach of the regulations or whose emissions are considered to be below the standard required by the Department. In cases where this notification is ignored the Committee refer the matter to the Department.

In instances where it is necessary to issue a "please explain" the recipient is asked to accept it in the "amateur" spirit and make endeavours to remedy the trouble by consulting the Handbook especially prepared for

the Amateur's guidance so that he may become more familiar with the regulations.

You, no doubt, will appreciate that the task of the observers is one requiring mature judgment and it should be understood that a "please explain" is not forwarded as a result of personal animosity. The Chairman, who is a Departmental representative, ensures that no such discrimination is shown by any member of the Committee towards any Amateur licensee.

The value of the activities of these Committees is fully appreciated in the work which they are doing in assisting to help maintain good operating practices, particularly in the heavily congested bands. Certain of this congestion is caused by key clicks and thumps, spurious emissions which include harmonic radiations and splatter. See that you, as an Amateur, are doing your share by emitting a good clean signal. An application of the golden rule will help clean up the bands.

Besides the foregoing there are other breaches which are committed primarily through thoughtlessness. Amongst these are out of band operation and third party messages. These are viewed very seriously by the Department.

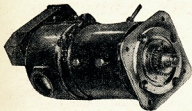
Amateur Radio has been in existence for the past 36 years—what a wonderful record to be proud of. Are you doing your share to maintain this good record? Play the game, please.

—Federal Executive.

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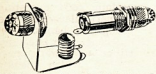
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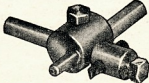
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Using the BC375E Transmitter Coil Units

BY J. DUNCAN,* VK3VZ

The BC375E Transmitter was used in great numbers during the war for communication between Liberator aircraft and ground stations, and for various other jobs where the U.S.A. Army required a medium power transmitter with an input to the power amplifier of about 150 watts.

Frequency changing was accomplished by means of plug in coil units, which contained the necessary condensers and inductances for coverage between 150 and 12,500 Kc. and it is these plug in coil units which we are to deal with in this article.

For those who are interested in the conversion of the whole transmitter in its entirety, it is suggested that they study the excellent article in "QST," December 1946, page 38.

Before the coil units are discussed it will be necessary to have a brief picture of the r.f. line-up of the transmitter.

The transmitter consists of only two stages on the r.f. side, a 211 master oscillator, driving another 211 as a power amplifier. This latter stage being modulated by Class B 211s. The r.f. side being shown in the functional diagram Fig. 1. The master oscillator is a plate tuned Hartley, the grid drive for the p.a. being obtained by tapping off the oscillator tank as shown, and feeding it via the blocking condenser to the p.a. grid. Neutralisation in the p.a. is achieved by taking another tap off the master oscillator tank, the same number of turns on the other side of the oscillator h.t. connection, and feeding it back to the plate of the p.a., neutralisation being achieved by adjustment of the variable condenser located in this lead. It will be seen that as h.t. is present on both the master oscillator and power amplifier tanks, they will be insulated from ground, which may be handy in some of the applications to which the coil units could be put.

COIL UNITS There are seven plug in coil units to each transmitter, the one covering the lower frequency range 200-500 Kc. not being of much use in our case. This unit is the TU26B, the other six units being numbered TU5B to TU10B respectively.

Each of these units is housed in a duralumin case 18" long, 7-15/16" high and 7-13/16" deep, finished in black crackle. This case is only used to protect the coil box when not in use, the inner case and front panel being removed by releasing snap fasteners.

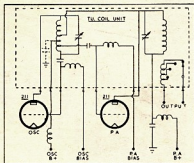
The inner case is divided into two equal sections, the left hand section housing the master oscillator inductance and condenser, and the right hand compartment, the power amplifier inductance, condenser, and ceramic tapping switch for adjustment of loading to the separate antenna loading unit. Also in

the master oscillator section is the neutralising condenser, r.f. chokes, and by-pass condensers.

The master oscillator condenser is constructed of Invar to reduce capacity changes due to temperature variations, is double spaced, and mounted on ceramic blocks—a beautiful condenser for a v.f.o. This condenser is driven through a ceramic flexible coupling, from a 50:1 worm drive. The drum dial is graduated 0 to 100 degrees for a complete revolution, and the scale on the condenser shaft 0 to 25 for a half revolution, giving 2,500 degrees for the full sweep of the condenser. This dial mechanism is spring loaded, has no backlash, and also has a dial lock incorporated.

The master oscillator inductance is tension wound on a ceramic ribbed former, and is fitted with a temperature compensating device inside the former. The neutralising condenser in this compartment is also double spaced, and insulated from the chassis, and is fitted with an insulated knurled disk, which can be set and locked, by removing the calibration chart on the front panel.

The various by-pass condensers in this section are all 3,000 volt types of excellent manufacture.



The right hand compartment contains the p.a. tank circuit and antenna switch, the condenser being double spaced, ceramic insulated, and in all units except the TU8B, which has a smaller value of capacitance, can be changed to split stator by cutting the stator bar on each side of the centre plate with a metal fretsaw. The centre stator plate can then be removed. The condenser is driven through a ceramic flexible coupler by a National type velvet vernier movement of about 5:1 ratio, this drive being fitted with a lock. The p.a. inductance is wound on a ribbed ceramic former, and has housed inside it the output coupling coil, which is taken through a heavily constructed ceramic tapping switch of six positions.

All connections to the remainder of the transmitter from the m.o. and p.a. compartments are brought out to a series of sockets located on an insulated strip running the full length of the coil box.

In the TU5B and TU6B Units frequency coverage is obtained in four and two steps respectively. This is done by switching fixed capacities across the master oscillator and power amplifier inductances. These ceramic switches being ganged by a metal bar. Each of the inductances switched into circuit in the master oscillator compartment, has a special temperature compensating condenser across it. These condensers consist of two round disks which act as the plates, the distance between them being varied by a bi-metal strip.

SUGGESTIONS FOR USE

From the above description it can be seen that the components are of particularly high quality and ideal for our use, and it is difficult to suggest any one particular use of this kind, as no two Amateurs think alike in that regard, however several ideas come to mind, and are given as a guide.

Firstly the unit can be dismantled for its components which are of very high quality and cannot be obtained elsewhere. The outer dural case only needs a front panel and you have a nice cabinet for receiver, v.f.o., etc. The ceramic coil forms, high voltage fixed condensers and switches all have places in the Ham shack.

Secondly by utilising the master oscillator condenser, and inductance in its existing position, and arranging a small chassis for oscillator and isolator tubes in the left hand compartment, removing all components in the right hand compartment, and installing a buffer amplifier and power supply, the unit can be made into a very nice v.f.o. If an external power supply is to be used, the inductance and condenser originally used for the p.a. could be used for the plate circuit of the buffer amplifier.

Because of the high quality of the condenser and inductance, the "Clapp" oscillator is particularly suited to this unit.

Fourthly the TU5B which has a range of 1.5 to 3 Mc. would make an ideal frequency meter and is discussed in detail later in the article. Because of its 2:1 frequency range, complete coverage of the short wave spectrum up to the highest harmonic audible on a receiver is obtainable.

To determine the bandwidth, and capacities required to bring the various units into the Amateur bands, an oscillator and isolator stage was built up, the oscillator being of the familiar electron coupled type. In all tests the frame of the oscillator condenser was grounded,

* Technical Editor, 23 Parkside Ave., Balwyn, Victoria.

and the taps on the inductance, other than the centre one, were removed. The remaining tap was used for the cathode. The following data was obtained, and it should be noted that the values of capacity do not apply to the "Clapp" oscillator, but only to the electron coupled circuit, used for the tests.

TU5B.—Range 1.5-3 Mc. Osc. cond. 20-135 pF, p.a. cond. 20-156 pF.

Remarks.—This unit was not available for tests.

TU6B.—Range 3-4.5 Mc. in two steps; (1) 2.85-3.65 Mc., (2) 3.45-5.2 Mc. Osc. cond. 15-75 pF, p.a. cond. 19-116 pF.

Remarks.—No change in oscillator fixed capacities necessary, only necessary to disconnect fixed capacity connected to cathode tap of inductance.

Bandsread on 3.5 to 4 Mc.—925°.

TU7B.—Range 4.5-6.2 Mc. Osc. cond. 23-111 pF, p.a. cond. 19-116 pF.

Remarks.—Parallel capacity required to tune 3.5 Mc. band, 50 pF. zero drift, and 3-30 pF. air trimmer.

Bandsread on 3.5 to 4 Mc.—1471°.

TU8B.—Range 6.2-7.7 Mc., osc. cond. 14-66 pF, p.a. cond. 15-81 pF.

Remarks.—No alterations required, although 3-30 pF. air trimmer

could be added to bring 7 Mc. band to low end of scale, thereby increasing bandsread. P.A. cond. not suitable for alteration to split stator, (all other ranges suitable).

Temperature stability excellent.

Bandsread on 7 Mc. band—183°.

TU9B.—Range 7.7 to 10 Mc., osc. cond. 15-77 pF, p.a. cond. 19-116 pF.

Remarks.—Parallel capacity required to tune 7 Mc. band, 3-30 pF. air trimmer. Remove 400 pF. fixed condenser between cathode tap and ground.

Bandsread on 7 Mc. band—281°.

TU10B.—Range 10-12.5 Mc., osc. cond. 14-62 pF, p.a. cond. 19-116 pF.

Remarks.—Parallel capacity required to reach 7 Mc. band 100 pF. zero drift, and 3-30 pF. air trimmer. Remove 400 pF. condenser from cathode tap to ground.

Bandsread on 7 Mc. band—512°.

General.—The value of the neutralising condenser in all ranges is 8-26 pF.

Any of the v.f.o. circuits described in "Amateur Radio" could be built into one of these units, and if the normal electron coupled oscillator circuit is used a suitable circuit would be the one described in "Amateur Radio," August 1947, which gives details of the method for locating the cathode tap for voltage

stability, quite an important adjustment in an oscillator of this type. If a "Clapp" oscillator is used some adjustment may be necessary to the inductance to locate the Amateur bands correctly, as it is not permissible to use fixed condensers across the inductance in this oscillator.

All screws in these units have been fixed in with an adhesive, which can be softened with paint thinner thereby making them easy to remove.

The condenser which it is necessary to remove, between centre tap and ground, is shown dotted in Fig. 1. Obviously with one side of the inductance grounded, this capacity will be connected between the cathode tap and ground of the electron coupled oscillator.

Finally the following articles describing various conversions possible with these units, are listed below.

1. "What about the BC375E7," "QST," December 1946, page 38.
2. "A surplus parts Bandswitching Transmitter," "QST," September 1948, page 11; Part 2, "QST," October 1948.
3. "Transitron V.F.O. Unit," Short Wave magazine, June 1948, page 235.
4. "TU5B as Frequency-checked V.F.O. Driver," Short Wave magazine, page 464.
5. "TU5B as TU5B," Short Wave Magazine, November 1948, page 624.

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A High Stability Frequency Meter

BY R. HIGGINBOTHAM,* VK3RN

One of the most essential pieces of equipment necessary in the Amateur shack, and one which is required by the P.M.G., is a good, stable frequency meter. With the great popularity of v.f.o. operation these days, an accurate means of checking the frequency transmitted is imperative, and even where crystal control is used, it is necessary to check the frequency of crystals to see that they fall within the Amateur bands. It is also a great help in finding a station who finds it necessary to change frequency. Imagine the saving in time if you can use your frequency meter to narrow down the field of search to a few kilocycles, instead of searching aimlessly up and down the band.

Although this article is written around one of the BC375E coil units described elsewhere in this magazine, with a little extra work and careful adjustments, especially that of temperature compensation, a similar frequency meter could be built up using some of those good parts that are lying around the shack.

After viewing the TU5B tuning unit from the BC375E, the idea came to mind that a stable frequency meter could be constructed, using the oscillator tuning components, and with the dial capable of being read to one part in 2,500, quite a high degree of accuracy could be obtained, especially as the 1.5 to 3 Mc. range is covered in four steps. Further thought revealed that by removing all the p.a. tuning parts, there would be sufficient room in the p.a. compartment to include the necessary valves and power supply.

Upon laying out the parts it was found that there was ample room, so it was decided to add an electron eye and crystal, also a means of modulation, to make the frequency meter more versatile. These two units were added, and during the process of testing, it was realised that the electron eye only gave one check point over the whole range of the meter, which was 2,500 Kc. with the disposals crystal used. As the meter had four switched ranges, this meant that some of the ranges would not have a check point.

The system used in a commercial frequency meter came to mind. Why not replace the electron eye with a straight crystal oscillator? This was done, and resulted in a large number of check points being obtained throughout the four ranges from 1.5 to 3 Mc., due to the beating of the fundamental and harmonics of the two oscillators.

CIRCUIT The final set-up is shown in the schematic diagram. A 6SJ7 is used as an electron coupled oscillator, utilising the original capacity and inductance, dial movement, etc. The output from this oscillator feeds to the output terminal, and also the grid of the 6K8 mixer. The triode section of the 6K8 is connected in a conventional

crystal oscillator circuit, with a slug tuned broadcast coil ("Aegis" osc. M11 with plate coil removed) in the plate circuit of the oscillator tuned to the frequency of the crystal, in this case 2,500 Kc. This crystal was used simply because it was easier to get than a 1,000 Kc. crystal, and apart from the disadvantage of not providing band edge markers, does the job just as well, and at much less cost.

The output of the 6K8 mixer feeds into a triode connected 6SJ7 which serves the dual purpose of audio amplifier for normal frequency meter operation, and audio oscillator for modulation purposes.

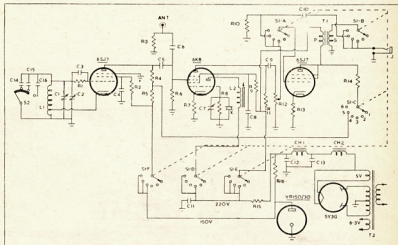
A function switch is used to change the circuit for the functions required, and consists of three banks of two poles with six positions. Although a six position switch is used—to correspond with similar markings on the front panel of the old antenna coupling switch—only four are used. The six positions

operate as follows:—

1. Warm up—all filaments on.
2. Warm up—all filaments on.
3. Crystal—Crystal oscillator only.
4. Operate—E.C.O. only.
5. Modulate—E.C.O. amplitude modulated by 6SJ7 audio oscillator.
6. Check—E.C.O. and Crystal on, 6SJ7 connected as audio amplifier.

The transformer T1 is an ordinary 3:1 interstage job, which happened to be on hand. If the audio oscillator fails to work when switched to position 5, reverse the connections to either the primary or secondary. The frequency of the audio note is controlled by the condenser C10, smaller values raising the pitch.

The power supply is conventional, with the voltage regulator controlling the voltage to all essential points. A two section filter with high value of filter capacity ensures that the note will be clean.



C1—Original osc. tuning condenser.

C2—5 pF. variable (Corrector).

C3—15 pF.

C4—0.001 uF.

C5—50 pF.

C6—25 pF.

C7—15 pF. variable trimmer.

C8—0.1 uF.

C9—0.02 uF.

C10—0.01 uF.

C11—0.1 uF.

C12, C13—16 uF. electrolytics.

C14, C15, C16—Existing condensers in coil unit.

R1—250,000 ohm watt.

R2—10,000 "

R3—5,000 "

R4—50,000 "

R5—20,000 "

R6—500,000 "

R7—150 "

R8—1 megohm 1/2 watt.

R9—10,000 ohm 1/2 watt.

R10—50,000 "

R11—50,000 "

R12—500,000 ohms pot.

R13—1,000 ohms 1 watt.

R14—20,000 "

R15—2,500 " 20 "

R16—7,500 " 20 "

L1—Original oscillator coil.

L2—Aegis broadcast osc. coil (M11) with plate winding removed.

CH1, CH2—6 H. 60 Ma. Rola chokes.

T1—Standard audio transformer.

T2—385-0-385 v., 60 Ma., 5v., 6.3 v. transformer.

J—Phone jack.

Sw1A—F-3 bank, 2 pole, 6 position switch.

Sw2—Existing band switch in coil unit.

X—Crystal, 2.5 Mc.

* 43 Eleanor St., Ashburton, E.13, Vic.

TEMPERATURE COMPENSATION

The present oscillator inductance has an inductance loop inside the former which is varied axially by two metal rods, one constructed of a metal having a low co-efficient of expansion, and the other a high co-efficient of expansion, thereby varying the inductance with a change of temperature.

A small additional amount of temperature compensation was found necessary, and a negative co-efficient condenser was connected across the tuned circuit. A suitable condenser is made by Ducon, and is a ceramic 3-30 pF. type, with the plates silver sprayed onto the ceramic. The type should be the N500, the one marked N.P.O. is a zero drift and is not suitable. The capacity of the negative co-efficient condenser should be increased in steps, and the lumped capacity decreased in the remainder of the circuit, until correct compensation is obtained. If the above type of condenser is not obtainable a fixed ceramic of 50 or 100 pF. (N750) in series with an air trimmer will also serve the purpose.

The e.c.o. and crystal should be made to beat preferably on about the 1.875 Mc. check point, and temperature compensation adjusted there, this will ensure that the greatest stability will be in the Amateur bands where it is most needed.

A large number of check points are audible throughout the range 1.5 to 3 Mc. covered by the meter, but only the

main ones are used. When the meter is calibrated they should be noted in a similar manner to the BC221 Frequency Meter.

CONSTRUCTION

All components in the p.a. section were removed, and also those in the oscillator compartment except the variable condenser, inductance, range switch, and temperature compensated condensers controlled by this switch. Some of the screws holding the components are glued into position and can be removed by softening the adhesive with paint thinner.

The height of the new chassis fitted to the p.a. section must be governed by the components used. In the Writer's case the function switch (which replaced the antenna output switch) was mounted, and the chassis then placed in position so that there was sufficient clearance between the two. Another point to watch is that there is still enough room above the chassis for the valves. Metal valves were used for obvious reasons. The VR150/30 regulator tube rises above the rear wall by about half an inch, so the perforated metal cover was cut to allow the valve to project. When the unit is placed in its case there is still clearance between the top of the regulator and the case.

The oscillator valve socket is mounted on the partition wall, and the valve protrudes above the chassis in the old p.a. compartment. The 6K8, 6SJ7, and crystal are mounted vertically in front

of the power transformer, with the regulator tube and rectifier to the right of the power transformer, and in front of the latter two tubes are placed the audio transformer and the crystal oscillator coil.

The antenna terminal is mounted at the top-centre of the front panel, with the phone jack in line at the bottom of the panel. The corrector condenser is located in the bottom of the oscillator section, this condenser being used to bring the crystal check points to the predetermined dial reading.


CALIBRATION

Calibrating the frequency meter is best done by using a frequency divider giving 10 Kc. points. If the output of the frequency meter is tuned in on a receiver at five times the fundamental, 7.5 to 15 Mc., and beat against the 10 Kc. points at this frequency, readings will be obtained every 2 Kc. on the fundamental. A calibration book can then be drawn up, and the crystal check points noted at the bottom of each page.

Alternatively a graph could be prepared covering the four ranges, and the crystal check point readings listed.

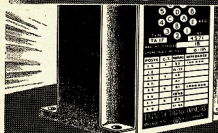
With due care in construction and adjustment of this frequency meter, extremely accurate results can be obtained, which will be more than ample for our requirements, and you will have virtually "the poor man's Bendix."

The writer wishes to thank Mr. J. Duncan (VK3VZ) and Mr. J. Groves for their assistance and suggestions in the conversion of this tuning unit.



FOUNDATION

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(DIVISION OF CLIFF & BUNTING PTY. LTD...)

IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS

MAY, 1949

The accompanying charts have been prepared by the Ionospheric Prediction Service of the Commonwealth Observatory. The first set of the series was published in the November, 1948, issue of this magazine, together with an article explaining the nature of the forecasts and how to use them. Nine of the charts, prefixed by the letter "C" for Canberra, refer to forecasts for the South-Eastern Australian States. The remainder, prefixed by the letter "P" for Perth, are for Western Australia.

These charts refer to the following world zones:—

| Zone | Region | Terminal |
|------|-----------------|---------------|
| 1 | Western Europe | London |
| 2 | Mediterranean | Cairo |
| 3 | N.-West America | San Francisco |
| 3a | N.-East America | New York |
| 4 | Central America | Barbados |
| 5 | South Africa | Johannesburg |
| 6 | Far East | Manila |

The forecasts have actually been prepared for point-to-point circuits between either Canberra or Perth and the overseas terminals mentioned in the above table. It is, however, to be expected that the charts will provide an approximate indication of ionospheric conditions for all Amateur contacts from South-Eastern Australia and from Western Australia to the various world zones. No forecasts are given from Perth to zones Z2 and Z4 for the current month. Chart P-Z2 would be essentially similar to P-Z1 while chart P-Z4 would be unreliable due to auroral activity in high northern latitudes.

USE OF CHARTS

All that is necessary in using the charts is to select a time (G.M.T.) during which a specified Amateur band frequency is below the maximum usable frequency (m.u.f.) of the F region of the ionosphere but above the lowest useful frequency (l.u.f.) for the desired contact. In two cases, zones 1 and 3a, it is necessary to consult both the short-route (s.r.) chart and the following long-route (l.r.) chart.

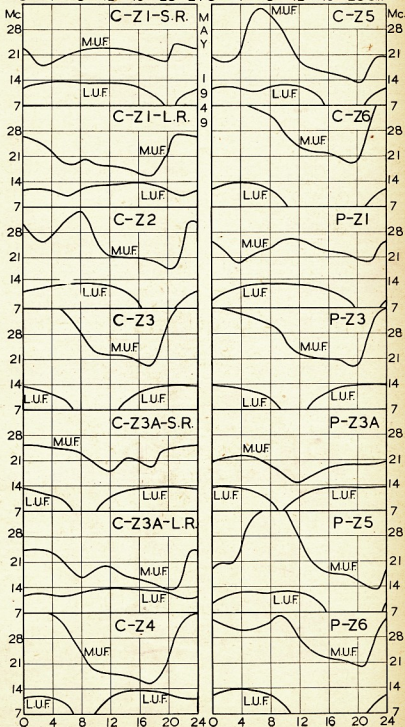
QUIZ

The Prediction Service welcomes comments on the accuracy of its predictions. In particular answers to the following questions on the Canberra-Far East circuit for May would be useful:—

1. Was the 28 Mc. band available from a few hours before midnight to a few hours before noon G.M.T.?
2. Were conditions noisy on 14 Mc. for several hours in the early morning, but good for the rest of the Greenwich day?
3. Were best conditions experienced on 7 Mc. from 11 hours to 21 hours G.M.T.?

Answers to the Quiz should be sent to the W.I.A. and should, if possible, refer to consistent results obtained on the majority of days in the month.

IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS
O 4 8 12 16 20 24 O 4 8 12 16 20 G.M.T.



Results of Frequency Measuring Contests

The following are the results of the Frequency Measuring Contest, held on 25th March and 1st April:—

1st Prize—VK3BB A. E. Budge, 33 Paynes Street, Morewell, Vic. (£3 order for radio gear).

2nd Prize—VK3YS F. G. Ball, 62 Shannon Street, Box Hill (£2 order for radio gear).

Special Prize for best use of home-built equipment—VK3ACM C. R. Mackenzie, 34 Orange Gve., Camberwell.

The full list of entrants, in order of accuracy are appended, the second figure being the average error in cycles per second. The figure in brackets is the number of frequencies submitted by the Competitor.

As was expected commercial frequency meters were very much to the fore, BC221s being used by competitors in 1st, 2nd, 3rd, 7th, 8th, 10th, and 15th places. VK2RA used a commercial permeability tuned v.f.o. which was the i.f. unit of the AT13 transmitter, and calibrated it against a 200 Kc. crystal oscillator. VK2QL hand calibrated an SCR211 and used it to win 5th place.

The most meritorious use of home-built equipment was judged to be VK3ACM, whose equipment was a home-built v.f.o. (e.c.o. 6SJ7, 1852 untuned class A amplifier, with a regulated power supply). Ten entries were submitted by this entrant, and his average error was 189 c/s.

VK5RR had an unusual set up, to quote: "Home constructed receiver, permanently tuned to 5KA at 1200 Kc., single tube v.f.o. with L/C constants at

50 Kc., adjusted exactly to this frequency by zero beat with 5KA at its 24th harmonic, and a heterodyne frequency meter on the broadcast band which can be corrected at any time by zero beat with 5KA, the 6th harmonic of which is 7200 Kc., with check points by means of the 50 Kc. standard at 7150, 7100, 7050, and 7000 Kc."

The remaining entrants' home-built equipment in brief was:—

VK2GU.—Home-built frequency meter, with 200 Kc. crystal, and 20 Kc. multi-vibrator.

VK3XB.—Home constructed frequency meter using single 1D8GT with pentode as 3.5 Mc. band osc., triode audio amp.

VK2ZC.—100 Kc. oscillator, 10 Kc. multi-vibrator, and calibrated b.f.o. oscillator to interpolate 10 Kc. spots.

VK3ADF and VK3ADG used Class C Wavemeters. VK3GS used a BC348 receiver calibrated against 100 Kc. crystal in Hammurund Frequency Oscillator Unit.

As will be seen from the results, 15 of the 17 entrants obtained an accuracy of under 400 cycles which is excellent measuring, and the entry of VK6DD who measured all 10 frequencies and had an error of only 286 cycles was remarkable.

For the information of entrants, the frequencies given by the Standard Frequency Service are appended, and the Judges wish to thank all concerned for their entries, and especially to the Measuring Service which co-operated so fully.

DETAILED RESULTS OF CONTEST

| Call Sign | Error in c/s. | Frequencies Submitted |
|----------------|---------------|-----------------------|
| 1—VK3BB | 121 | (7) |
| 2—VK3YS | 141 | (5) |
| 3—VK3PW | 146 | (5) |
| 4—VK2RA | 157 | (8) |
| 5—VK2QL | 170 | (5) |
| 6—VK3ACM | 189 | (10) |
| 7—VK2ZB | 197 | (10) |
| 8—VK3AWW | 220 | (4) |
| 9—VK5RR | 235 | (5) |
| 10—VK6DD | 286 | (10) |
| 11—VK2GU | 287 | (10) |
| 12—VK3ADF | 294 | (6) |
| 13—VK3XB | 310 | (6) |
| 14—VK3GS | 331 | (5) |
| 15—L. D. Sykes | 393 | (10) |
| 16—VK2ZC | 646 | (4) |
| 17—VK3ADG | 1176 | (10) |

OFFICIAL FREQUENCIES

| |
|--------------------------------|
| 1—7003.744 Kc. |
| 2—7049.700 Kc. |
| 3—7094.065 Kc. (7093.826 Kc.) |
| 4—7132.320 Kc. (7132.261 Kc.) |
| 5—7163.120 Kc. (7163.091 Kc.) |
| 6—7024.810 Kc. |
| 7—7066.240 Kc. (7066.454 Kc.) |
| 8—7107.520 Kc. (7107.391 Kc.) |
| 9—7144.525 Kc. (7144.695 Kc.) |
| 10—7192.278 Kc. (7192.869 Kc.) |

The frequencies submitted by the winning entrant are in brackets alongside each Official Frequency.

C.W. Ratings for Several Radiotron Receiving Valves

| Valve Type | Max. Plate Volts | Max. Screen Volts | Max. Grid Volts | Max. Plate Ma. | Max. Screen Ma. | Max. Grid (Note 1) | Max. Plate Dissipation (watts) | Max. Screen Dissipation (watts) | Max. Power Output (watts) (Note 2) | Max. Freq. in Mc. (Note 3) | Grid-Screen Amp. Factor (approx.) |
|------------|------------------|-------------------|-----------------|----------------|-----------------|--------------------|--------------------------------|---------------------------------|------------------------------------|----------------------------|-----------------------------------|
| 6AG7 | 375 | 250 | —75 | 30 | 9 | 5 | 9 | 1.5 | 7.5 | 30 | 22 |
| 6AK6 | 375 | 250 | —100 | 15 | 4 | 3 | 3.5 | 1 | 4 | 60 | 9.5 |
| 6C4 | 300 | — | —100 | 25 | — | 8 | 5 | — | 5.5 | 60 | 18 |
| 6F6 | 400 | 275 | —100 | 50 | 11 | 5 | 12.5 | 3 | 14 | 30 | 7 |
| 6L6 | 400 | 300 | —125 | 100 | 12 | 5 | 21 | 3.5 | 28 | 30 | 8 |
| 6N7 | 350 | — | —100 | 30† | — | 5‡ | 5.5† | — | 14.5‡ | 30 | 35 |
| 6V6GT | 350 | 250 | —100 | 47 | 7 | 5 | 8 | 2 | 11 | 30 | 9 |

Note 1: 100,000 ohms maximum grid resistor.

" 2: Based on 70% plate efficiency.

" 3: Maximum frequency for full power output and input.

† Per Plate.

‡ Per Grid.

\$ Total.

Publication of this data should not be taken as an indication that all types mentioned are available from stock. Amateurs possessing any of these types will find the above chart a useful guide to maximum operating conditions. It should be noted that metal tube ratings given above do not necessarily apply to G and GT equivalents.—"Radiotronics," March-April, 1949.

VK'S ABROAD

Recently we have received letters from two VKs who are at present in Great Britain. As their letters are interesting, it is thought that readers would be interested to know what is going on in other parts of the world.

The first is from Elgar Treharne (VK3AFQ, now G3CST). He says: "I was very pleased to receive the invitation to attend the 6th Annual Exhibition of the R.C.M.F. Exhibitions, Fairs, and Conferences are very fashionable in London and one is continually amazed at the splendid display of components, especially at this show at the Grosvenor. There has been great emphasis on technical components from perspex lenses for the optical enlargement of the c.r.t. screen to high capacity electrolytics for e.h.t. supplies.

"For the Amateur a very wide range of co-axial cables, modulation equipment, transmitting condensers and other wanted components. There seems to be a score or more makers of loud speakers from 2½" diameter to the huge so called reflexed sound projectors. And there are just as many makes of pick-ups to stimulate these speakers.

"An interesting development of the thermistor is the 'Brimister'—a current sense resistor. The large negative temperature co-efficient characteristics of this device are exploited in this new component, one type of which has a resistance of 3,000 ohms at 20°C. and a resistance of 200 ohms when passing 0.1 Amp. Miniature components were represented, perhaps, not as much as I would have expected. There seems a great need for standardisation, espec-

ially with tubes—there is not only a multiplicity of almost comparable types, but the nomenclature seems to be designed with the express purpose of foxing the young player.

"Please convey my congratulations to 'Amateur Radio'—the journal is really first-class these days, especially the technical articles on the conversion of service equipment to Amateur use."

The second is from W. H. Algar who had requested some W.I.A. information.

"GREMLIN"

In the twelve months that this feature has been absent from the columns of "A.R.," signals emanating from Amateur stations, sloppy operating, the misuse of v.f.o.'s., etc., have gone from bad to worse.

Many requests for the return of "Gremlin" have been received by the Magazine Committee, and it has been unfortunate that the "Gremlin" has not been in a position to carry on with his good work.

However with the June issue this feature will re-commence. It will be written by a new "Gremlin," but will appear under a different name. The person responsible is one I have known for many years, whose interest is solely for the betterment of Ham Radio. He is an active transmitting member on all bands, and has been for many years.

—THOMAS D. HOGAN, Editor.

REVIEW

We have received from R. H. Cunningham & Co. a copy of the new 1949 Eddystone Component Catalogue, which as usual offers a most attractive range of components to the Ham. In addition to the lines already available, there are quite a few new lines which will have an immediate appeal to experimenters and these include Cat. No. 678 Modulation level indicator and field strength meter. Cat. No. 717 145 Mc. beam aerial kit and No. 709 145 Mc. tuning unit. Cat. No. 690 is a crystal calibrator containing two G.E. 1000 and 100 Kc. vacuum mounted crystals and is ideal for spotting down to 60 Mc.

The range of transmitting and receiving condensers has been expanded and offers many useful types for application up to 500 Mc. and above.

Copies of this Catalogue are available immediately from authorised Eddystone distributors.

LOCATION of RADIO RANGES

The location of the Radio Ranges mentioned in the article, "What No Beacons," in March "A.R." may not be known to readers.

We are therefore indebted to Mr. F. Hanham (VK3BJ) for supplying the following information:—

| | | |
|----|------|-------------------------|
| AD | 33.8 | Parafield, Adelaide. |
| AS | 33.8 | Alice Springs, N.T. |
| BN | 33.3 | Archerfield, Brisbane. |
| CS | 33.3 | Cairns, Queensland. |
| CB | 33.8 | Canberra. |
| DW | 33.8 | Daly Waters, N.T. |
| DN | 33.3 | Darwin, N.T. |
| ML | 33.8 | Essendon, Melbourne. |
| TV | 33.8 | Garbutt, Townsville, Q. |
| PH | 33.8 | Guildford, Perth. |
| HB | 33.8 | Cambridge, Hobart. |
| HK | 33.3 | Holbrook, N.S.W. |
| KM | 33.8 | Kempsey, N.S.W. |
| MN | 33.3 | Mangalore, Victoria. |
| SY | 33.3 | Mascot, Sydney. |
| NH | 33.3 | Nhill, Victoria. |
| LT | 33.3 | Western Junction, Tas. |

His letter reads: "Thank you very much for the pamphlet describing the activities of the Victorian Division of the W.I.A. It is very much appreciated as the Hams here are very interested in Amateur Radio in Australia.

"Since I've been in Coventry—since January—I've made quite a lot of good friends amongst the Hams here, and have joined the local radio society—Coventry A.R.S. They are a very enthusiastic and energetic body, holding their meetings every second week. I have recently taken out a licence for this country and hope to be on the air as soon as I am allotted a call sign."

Low Drift Crystals FOR AMATEUR BANDS

ACCURACY 0.02% of
STATED FREQUENCY

3.5 M/C and 7 M/C

Unmounted .. £2 0 0

Mounted .. £2 10 0

12.5 and 14 M/C Fundamental Crystals, "Low Drift" Mounted only £5.

Spot Frequency Crystals
Prices on Application

Regrinds . . . £1 0 0

THESE PRICES DO NOT
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FEDERAL, QSL and DIVISIONAL NOTES



Federal President.—W. R. Grenow, VK3WG; Federal Secretary.—W. T. S. Mitchell, VK3UM, Box 2611W, G.P.O., Melbourne.

NEW SOUTH WALES
Secretary.—Dick Dowse (VK2RP), Box 1734, G.P.O., Sydney.

Meeting Night.—Fourth Friday of each month at Science House, Corner Gloucester and Essex Sts., Sydney.

Divisional Sub-Editor: H. F. Trehan, VK2BM, 5, Walmsley St., Burwood.

Zone Correspondents.—North Coast and Tablelands:
P. A. H. Alexander, VK2PA, Hill St., Port Macquarie; Newcastle: E. J. Baker, VK2FP, 13 Skelton St., Hamilton, Newcastle; Coalfields and Lakes: H. Hawkins, VK2YL, 27 Comfort Ave., Cessnock; Western: G. J. Russell, VK2QA, 116 Bogan St., Nymang; South Coast and Tablelands: R. H. Rayner, VK2AO, 42 Pettit St., Yass; Southern: E. N. Arnold, VK2OJ, 673 Forster Hill Ave., Albury; Western Suburbs: A. C. Pearce, VK2AIB, 49 Harbord Ave., Five Docks; Eastern Suburbs: H. Kerr, VK2AN, 10 A Flax St., 144 Henley St., Bronte; North Sydney: L. D. Cuffe, VK2AM, 779 Military Rd., Mosman; St. George: J. A. Ackerman, VK2ALE, 32 Park Rd., Carlton; South Sydney: V. H. Wilson, VK2VW, Cr. Wilson St. and Marine Pde., Maroubra.

VICTORIA
Secretary.—C. C. Quin, VK3WO
Administrative Secretary.—Mrs. O. Cross, Law Court Chambers, 191 Queen St., Melbourne, C.I.
Meeting Night.—First Wednesday of each month at the Radio School, Melbourne; Technical College Zone Correspondents.—North Western: B. R. Mann, VK3MA, Quambatook; Western: C. C. Waring, VK3YW, 12 Skene St., Stawell; South Western: B. S. Searling, VK3BI, 17a Raglan St., North Ballarat; North Eastern: J. A. Miller, VK3AG, "Ennivala," Avenel; Far North-Western Zone: Harry Dobbin, VK3MF, 42 Walnut Ave., Mildura; Eastern Zone: J. D. Chilver, VK3DI, 20 Smith St., Leongatha.

| FEDERAL DX C.C. LISTING | | PHONE | | Zone Countries | |
|----------------------------|----|-------------|----|----------------|-----|
| VK3JD (26) | .. | .. | .. | 32 | 121 |
| VK3JH (57) | .. | .. | .. | 37 | 108 |
| VK3JB (23) | .. | .. | .. | 37 | 108 |
| VK3GW (34) | .. | .. | .. | 36 | 105 |
| VK3IG (37) | .. | .. | .. | 100 | |
| | | C.W. | | Zone Countries | |
| VK3CN (5) | .. | .. | .. | 40 | 136 |
| VK3YH (13) | .. | .. | .. | 39 | 129 |
| VK3BZ (14) | .. | .. | .. | 40 | 131 |
| VK3EK (10) | .. | .. | .. | 39 | 122 |
| VK3EL (24) | .. | .. | .. | 39 | 130 |
| VK3DQ (7) | .. | .. | .. | 40 | 116 |
| VK4DA (20) | .. | .. | .. | 38 | 113 |
| VK3QL (13) | .. | .. | .. | 40 | 112 |
| VK3DQ (19) | .. | .. | .. | 38 | 106 |
| VK3KB (33) | .. | .. | .. | 38 | 104 |
| | | New Member— | | | |
| VK4RF (35) | .. | .. | .. | 34 | 102 |

| OPEN | | Zone Countries | |
|------------|----|----------------|-----|
| VK3DI (3) | .. | .. | 40 |
| VK3BZ (5) | .. | .. | 40 |
| VK3RI (11) | .. | .. | 37 |
| VK3KK (1) | .. | .. | 37 |
| VK3HG (1) | .. | .. | 38 |
| VK3DQ (18) | .. | .. | 39 |
| VK3MC (6) | .. | .. | 39 |
| VK4HR (9) | .. | .. | 38 |
| VK4KW (19) | .. | .. | 39 |
| VK4ZL (40) | .. | .. | 39 |
| | | New Member— | |
| VK4RO (36) | .. | .. | 100 |

Endorsements in the form of a sticker are now being issued for the first time. 20 administrative verified above the 100 required for the Certificate.

COUNTRIES LIST
In line with our note last month, it is understood that ex-DL amateurs are now being issued with DL calls which will be DL1, 3, 6, 7, 8, 9, in addition to the Occupation Force prefixes as listed last month.
Substitute for Germany.—DL in lieu of D (DA).
For Spain, Iceland, Portugal, etc.—add prefix RG.
For Spain and Yucatan—add prefix RG.
Add New Country—Heard Island (39) VK1.

WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WI—Sundays, 1100 hours EST, 7195 Kc. and 2000 hours EST, 50.4 Mc. No frequency checks available from VK2WI. Intra-State working frequency, 7175 Kc.

VK3WI—Sundays, 1130 hours EST 7195 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI—Sundays, 0930 hours EST simultaneously on 3750 Kc., 7195 Kc., 14,942 Kc., 52.1 Mc. and 144.138 Mc. Frequency checks are given two nightly weeks, and the times are announced during Sunday broadcasts. 7010 Kc. channel is used from 1000 to 1030 hours on days as VK4 query service to 4WI.

VK5WI—Sundays, 1000 hours SAT on 7195 Kc. Frequency checks are given by VK5WD on Friday evenings on the 7 and 14 Mc. bands.

VK6WI—Sat. 2 p.m. Sun. 9.30 a.m. W.A.S.T. 7195 Kc. No frequency checks available.

VK7WI—Second and Fourth Sundays at 0830 hours EST on 7174 Kc. No frequency checks are available.

FREQUENCY ALLOCATIONS

Following representations to the P.M.G.'s Department by the Federal Executive, the following changes have been made with effect from the 1st May, 1949. Two new types of emission have been added, namely, n.b.f.m. (narrow band frequency modulation) type 6F3, and a.s.c. (aerial sideland suppressed carrier) type A3A. A substitution has been made for the old 1345 to 1425 Mc. band and we now have the Atlantic City allocation of 1215 to 1360 Mc. The list below is the up-to-date one for Australian Amateurs:—

| |
|---|
| 3.5 to 3.8 Mc.—A1, 3, 2a, 6F3. |
| 7.0 to 7.2 Mc.—A1, 3, 2a, 6F3. |
| 14.4 to 14.6 Mc.—A1, 3, 2a, 6F3. |
| 26.95 to 27.23 Mc.—A1, 3, 2a, 6F3. |
| 28.0 to 30.0 Mc.—A1, 3, 2a, 6F3. |
| 50.0 to 54.0 Mc.—A1, 2, 3, FM, Pulse. |
| 144 to 148 Mc.—A0, 1, 2, 3, FM, Pulse. |
| 288 to 296 Mc.—A0, 1, 2, 3, FM, Pulse. |
| 276 to 285 Mc.—A0, 1, 2, 3, FM, Pulse. |
| 1215 to 1360 Mc.—A0, 1, 2, 3, FM, Pulse. |
| 2300 to 2450 Mc.—A0, 1, 2, 3, FM, Pulse. |
| 3630 to 3850 Mc.—A0, 1, 2, 3, FM, Pulse. |
| 16060 to 16500 Mc.—A0, 1, 2, 3, FM, Pulse. |
| 21000 to 22000 Mc.—A0, 1, 2, 3, FM, Pulse. |
| 30060 Mc. and higher.—A0, 1, 2, 3, FM, Pulse. |

Note.—6F3 emission represents a maximum deviation from the quiescent frequency of plus or minus 3 Kc.

THIRD PARTY TRAFFIC

It has been brought to our notice by officers of the P.M.G. Department, that several deliberate breaches of Regulation 33, which deals with the handling of third party messages, have recently occurred. The P.M.G. Department take a very serious view of such contraventions and have intimated that any further cases will be severely dealt with. All Amateurs will receive notification of this matter in the Circular issued by the Department announcing the new types of emission. Also enclosed will be found Amendment No. 2 to the Handbook for the Guidance of Amateur Operators, January, 1948.

SLOW MORSE TRANSMISSIONS

Reports on these transmissions from Amateurs, would be Amateurs and a.w.s. would be welcomed by the Federal Executive. Drop the Federal Secretary a note, and let him have your comments. The

QUEENSLAND
Secretary.—W. L. Stevens, VK4TB, Box 638J, G.P.O., Brisbane.

Meeting Night.—Last Friday in each month at the State Service Building, Elizabeth St., City.

Divisional Sub-Editor: F. H. Shannon, VK4SN, Minden, via Rosewood.

SOUTH AUSTRALIA
Secretary.—E. A. Barbier, VK5MD, Box 1234K, G.P.O., Adelaide.

Meeting Night.—Second Tuesday of each month at 17 Wymouth St., Adelaide.

Divisional Sub-Editor.—W. W. Parsons, VK5PS, 483 Esplanade, Henley Beach.

WESTERN AUSTRALIA
Secretary.—W. E. Coxon, VK6AG, 7 Howard St., Perth.
Meeting Place.—Padbury House, Cnr. St. George's Ter. and King St., Perth.
Meeting Night.—Watch the Monthly Bulletin.
Divisional Sub-Editor.—VK6WT. D. Couch, Mary Street, Watersmans Bay, W. Australia.

TASMANIA
Secretary.—J. Brown, VK7BJ, 12 Thirza St., Newtown, Telephone: W 1328.
Meeting Night.—First Wednesday of each month at the Photographic Society's Rooms, 163 Liverpool St., Hobart.
Divisional Sub-Editor.—Capt. E. J. Cruise, VK7JE, Angelsea Barracks, Hobart.
Northern Correspondent.—C. P. Wright, VK7LZ, 3 Knight St., Launceston.

various official W.I.A. stations conducting these transmissions are as follows:—

Sunday—VK3WI, 1100-1130 E.A.S.T.
Monday—VK3WI, 2000-2030 E.A.S.T.
Tuesday—VK4WI, 930-950 E.A.S.T.
Wednesday—VK7WI, 2130-2200 E.A.S.T.
Thursday—VK6WI, not operating at present.
Friday—VK4WI, 1030-1050 E.A.S.T.

All of the above transmissions take place on 5504 Kc.

HEARD ISLAND REPORT

It is reported from Heard Island by VK1FE that early in February (presumably the first week) on his arrival, he logged the 50 Mc. signals from VK4BT at 2235 when 10 QSOs were made. Unfortunately Arthur did not have a transmitter on the air himself at that time. It appears that early contacts with Heard Island may be expected, especially from VK6.

Ron. VK1VU, appears to have the urge for the DX, judging by the cards coming to light for him, and the fact that he worked some 200 odd DX stations in the first two months of operation representing some 30 odd countries.

P.M.G. AMATEUR CALL BOOK

Due to difficulties in arranging printing, the Call Book may not be available before June. We will endeavour to obtain the latest correction lists until it is released.

FEDERAL CONVENTION

The 19th Annual Federal Convention, held over the Easter holidays, was a success and many resolutions were considered on all 33 Agenda items and 25 General Business items. A summary of the various motions and the result will be published in the next issue of "A.R."

38 Federal President's report indicated that a progressive year had gone by, and judging by the amount of work ahead as a result of the deliberations, another year is forecast.

Delegates who attended on behalf of the various Divisions were Mr. John Moyle (JAU), N.S.W.; Mr. Bob Cunningham (SML), Vic.; Mr. Howard Macgregor (Macgregor Qld.); "Doc" Barbier (SMD); and Mr. Hal Austin (S.A.W.), S.A.; George Moss (GDM), W.A.; Mr. Joe Brown (TBJ), Tas.; and Federal Executive Officers: Federal President Bill Gordon (3WG), Federal Vice-President Mr. George Glover (3AG), Federal Secretary



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An outstanding feature of the "640" is its unusually high signal-to-noise ratio, an attribute which enables the receiver to bring in, under adverse conditions, weak DX signals with a high degree of intelligibility. This fact can be proved by actual demonstration alongside other receivers of similar characteristics. One of the secrets of this important feature is the use of a single high gain, high efficiency R.F. stage. This design is supported by the opinion of skilled radio engineers. Air dielectric trimmer condensers and permeability-tuned coils contribute materially to the high sensitivity of the "640". The 1600 Kc/s I.F. stages and the modern design crystal filter provide high adjacent channel selectivity and large attenuation of image signals. The Eddystone "640" provides a tuning range of 1.7 Mc/s to 32 Mc/s in three bands, thus offering excellent bandspread. An "S" meter is available and may be plugged in at the rear of the receiver.

To the country amateur the "640" offers the excellent feature of being capable of operation from a 6 volt vibrator power unit in addition to the normal 110 to 250 volt 50/100 cycle mains.

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Mr. Bill Mitchell (3UM), Federal Publicity Mr. George Manning (83Z), and the Federal Treasurer Mr. Peter Farnham (3OG), and Mr. Brock (3GX) in his inimitable style, recorded the various findings of the Convention.

FREQUENCIES FOR FRENCH AMATEURS
As from the 1st January, 1949, the following details of frequencies allowable for French Amateurs are:—

- 3.5 to 3.825 Mc—0F3.
- 7.0 to 7.3 Mc—0F3.
- 14.0 to 14.4 Mc—0F3.
- 28.0 to 29.7 Mc—0F3.
- 78.0 to 78.8 Mc—100F3.*
- 144 to 146 Mc—100F3.*
- 400 to 450 Mc—0F3.
- 1215 to 1300 Mc—FM, Pulse.
- 2300 to 2450 Mc—FM, Pulse.
- 2650 to 2850 Mc—FM, Pulse.
- 10000 to 10500 Mc—FM, Pulse.

Power input permissible on the 3, 7, and 14 Mc. bands is 50 watts, and 100 watts for the other bands.
These bands to be utilised for the radio-control of models, in addition.

W.A.P. AWARD
In clarification of the countries for which claims may be made for this award (see March "A.R.") the following countries are to be used:—

- CR10 Portuguese Timor
- DR10 Philippine Islands
- FR8 New Caledonia
- FR10 French Oceania (Tahiti)
- FUB, YJ New Hebrides
- K80 Baker, Howland, etc.
- K81 Marianne Is. (Guam)
- KC0 Caroline Islands
- KC6 Palau Islands
- KG8 Bonin & Volcano Islands
- KH0 Hawaiian Islands
- KJ2 Johnston Island
- KM6 Midway Island
- KS0 Jarvis, Palmyra, etc.
- KS6 American Samoa
- KW6 Wake Island
- LA0 Line Islands
- LA6 Java
- PK4 Sumatra
- PK6 Netherlands Borneo
- PK8 Celebes & Molucca
- PK7 Neths. New Guinea
- VR Australia
- VR6 Papua Territory
- VK9 Norfolk Island
- VR1 Gilbert & Ellice Is.
- VR2 Fiji Islands
- VR5 Fanning (Washington) Is.
- VR4 Br. Solomon Is.
- VR6 Friendly (Tonga) Is.
- VR8 Pitcairn Island
- YS4 Br. Nth. Borneo & Labuan Is.
- YS8 Sarawak
- ZC0 British Borneo
- ZC2 Cocos Islands
- ZC3 Christmas Island
- ZK1 Cook Island
- ZL New Zealand
- ZM6 Western Samoa
- ZN0 Tokelau & Union Is.

NEW SOUTH WALES

At the monthly general meeting held at Science House, Gloucester Street, on Friday, 23rd March, Mr. Allan Bird 2GQ was able to present an "Inductive Coupling of Antennae to Feed Lines to Permit Continuous Rotation of Beam Antennae." The subject was considered so valuable that he has been asked to make it available for publication in "Amateur Radio" in the near future.

The general meeting was preceded by an Extraordinary and Confirmatory General Meeting to ratify alterations to the Constitution recommended by the Constitution Committee.

Visitors to the meeting, 3GS and 2QA, were welcomed by the President.
The names of the N.S.W. country observers of the P.M.C.'s Department. They are T. Evans 2NS, P. Alexander 2PA, R. Weedon 2PN, R. H. Benson 2PD, R. E. Baker 2PP.
The nominations for the 1949-50 Council were Brian Anderson 2AND, Vic Cole 2VL, Les Oufre 2AM, N. H. Hicks 2ANH, N. R. Hill 23Z, Oliver Hutchinson 2YF, Kenneth McArthur 2S, S. W. Owen 2BX, Terry Thorpe 2CL, and H. F. Trehan 2BM.

WESTERN SUBURBS ZONE
There is any amount of activity on the lower frequency bands. Mr. J. G. Brown of the other side of the Sydney area would be happy to see more Western Suburbs stations on 144 and 288 Mc. There are several regulars on these bands so don't be afraid of hearing a voice from the other side. The oscillators are not considered out of the question although the trend is towards crystal control. So far, the only help has been from the other side. Unidentified VK8 was reported heard a couple of months back on 144 Mc. 2AHU is going strong and says that this time his skyhook is up to stay. Curly also has a new receiver completed. 2AHT is a new one in the Five Dock area and has been operating on 40 and 20. 2JT has been lashing out on 80 metre phone. 2CH is doing as well as possible, though messy. Les takes in some good DX.

2ADA Tom Davies of Glebe, has not been very active but he has some promising stuff on the way. 2AEK not active recently. 2AGT of the family of Hama is striking out on 14 Mc. for some fine DX contacts. 2WB on 20 metre phone. 2MQ is mainly on 50 Mc. Bill Hopner to have some 820s on that band soon. 2TD has moved from the district. No news of radio developments. Just married. Y'know! 2SW doing some good work on v.h.f. 2ABH would give 6c in a week than in the last ten years.

SOUTH ZONE

During the month the local QRM was increased with the advent of a signal from 2ANB. Norm has just moved into this district and all the chaps wish to extend a very hearty welcome to him. The general topic of the month seems to be beams and still more beams. The locals turned out in force to help 2WJ put up a three element wide spread rig for 10 metres. Later they helped 2AT put up his 35 foot tower topped with a two element cross spaced beam on 20 metres.

2YU also has a three element under construction for 10. 2ABG has not been heard much lately, that new car giving trouble. Fred 2ABB on occasionally but Berry seems to be away a lot lately. 2ST also has been around and spends more time overseas than at home. 2UV had bad luck and blew up his main power transformer and is temporarily confined to 144 Mc. 2AB STUL re-building. Jim has his mast up again so it should not be long now. 2WJ heard chasing DX with new 10 metre beam, but have not heard him since. It is a pity that the new member is putting out a very nice signal on 144 Mc. Have not heard 2TI for a long time now, but rumour has it that Wal also has a new 20 metre beam in operation.

2YO now back on the job after a spell in hospital. Glad to hear you are OK again Jim. 2XP not heard lately. 2YU has a new 20 metre 2ABR on most week-ends on 20 or 40 metres, but Peter spends all the week travelling.

EASTERN SUBURBS ZONE

2QG has a new v.l.o. can be heard working DX outside peak b.e. hours. Ray says DX much easier with v.l.o. than with 2000 cycle. 2QW blew up final power stage twice, OK again and active on 20 phones. 2AIGQ threatens to make a come-back, rather cramped in the past. 2VA off the air after losing his three element beam in heavy wind. Vince has a 70 footer under construction, meanwhile was a folded dipole, not very pleased with it. 2AGS still doing good work on his 3 w. phone. Ray says he has to use phone on 40 to get a QSO, also aims to move to 20.

2A2I active on 20 phone. 2A3 has been on c.w. for years, blowing the dust off his key, to be another shot. 2QY finally cleared up the trouble in his rig, now putting out first-class phone. 2A2G not very active, heard occasionally on c.w. 2YF active 80 metre phone, having trouble with control relay. 2A2F built new receiver, Eric is very happy with its performance. 2A2J not heard much lately. 2A2K not active. 2A2L not active. 2A2M active 20 metre phone. 2BV still rebuilding, we are looking forward to your next transmission.

NORTH SHORE ZONE

There's so much activity in the beam-building business nowadays that it is fast getting to the point where anyone without one will be amazed at 2SG has passed the planning stage with his, and 2BI is going ahead with a super effort to replace his old one. 2A2G has a new 20 metre beam, some time ago. 2GQ, the grand old man of c.w., has his beam completed, and is collecting a few more contacts. 2A2H has a new 20 metre beam. 2IT is away from his QTH, travelling commercially in the country. 2PV and 2AM proceeding steadily and slowly—very slowly—with their re-build. 2A2N not active. 2A2O not active. 2A2P designing another receiver to end all receivers—I seem to have heard this before! 2TL and family

on holidays, miles away from Ham Radio. He also has a beam planned on his return. 2ADV back on air, very busy, but not on c.w. 2AMH will make the Century Club or bust.

DX NOTES BY VK2QL

Well, gang, there is very little to report this month as far as openings of the DX mode are concerned, as I have no details from more than one or two. Conditions have not been good during the past few months, but there have been some. 3.5 and 7 Mc. being well down. 2TD says 28 Mc. has been good for Africa round 0700 G.M.T., but all heard this QTH. If you happen to be on any band while there are something there, it can be worked as no "dog pile" gathers, due to the inactivity on the QTH. For instance, the other night GMSNO/VPU came through for a couple of hours at good strength and frequency. QY instead of being smothered by dozens of stations calling him, and similarly K841. The odd VK seems to be working the VKIs, but not heard here to date.

VK8KO again hits the headlines with another nice piece of work. He worked G6CJ on the four DX bands within a period of 95 minutes, concluding on 28 Mc. at 2215 G.M.T. A very creditable performance.

Another old timer has chased the spiders and what nets out of the rig and threatens to damage all DX receivers, the said gent being Morris Brown 2DR, 280 seems to be in a rest home or some place where (Gentle) is. 2DR has not been heard on the bands unless he now has one of his own. 2DT advises he has received his W.A.P. Certificate and numbered 2. Hear also advises receiving on 28 Mc. at 2.2, in order and also numbered 2 in respect of VK.

Cards are coming through from 2MB4FC, which shows about a half a dozen. My card was direct so may QSL all VK's direct. By working UMSKAA, 2ACX has now worked all Russian prefixes. Nice work Arthur. Does that make you a "Hero!!!" His wife is a lady.

Talking to Bert, WAFU, the other day he advised he now totals 22 countries, and still coping. He adds one more, but they all come from 2YO has a good ability for picking up cards, as Jim now totals 99 countries, latest being OX and YP9.

Many listings this month, so what about it gang?

VK2AOX—184, MD4GCO KOWWA (Palau Is.).
VK2DI—103, ZDSB, ZSSA.

VK2QY—151, GMSNO/VPU, HA1KK.

The QTH of PF8JA is Andre Jeannot, Adjutant-General, Colonial Radio Transmission Company, Papeete, French Polynesia.

Now, in closing, what about the DX gang making some sort of an effort, a serious one, to clean up the bands. Firstly, by cleaning up our own rigs, to believe me the DX gang, and men with years of experience behind them, are putting across horrible signs into the ether. Secondly, by not being afraid to give the station you are working an honest report. If his rig is not 144, tell him and the average bloke will thank you for letting him know. There is always the odd one who says "I'll be right with you" and then he never is. He will eventually do something. You phone chase will be surprised what is brought to light in a carrier when you put the b.e. on the rig. The other night, I was on 28 Mc. and I was completely right in this QTH by clicks radiated by a VK2, VK4 and VK3, operating in different sections of the band at the same time and during a recent Contest a VK5 phone sig was all over the c.w. section of the band horribly distorted. That was in Sydney, what must it have been like elsewhere. I hope you will all be a bit more careful.

73 for now and good hunting and honest reporting.

NORTH COAST AND TABLELANDS

Most of this zone have been active on 80 and 40. Conditions on 80 excellent; 2GI, 2XO, 2ABY, 2AFB, 2DQ and occasionally 2PA heard most evenings. 2GI has been very active, but not on c.w. and favours two half waves in phase. Now using cathode modulation with 100 per cent. improvement in quality and signal. 2A7C three sons had a very warm welcome to 28 Mc. when their sailing boat overturned near Lion Island.

2ABR expecting steel tower to arrive any day and the construction of a new beam. He recently had a visit from 2RU who told him a pleasant few days with Elsie and himself. Carried out some six metre tests with 800 at Wyong with effective range 100 miles.

2UN holidaying at Yamba, visited 2GL 2JX just about to give the game away due to line noise.

works twenty when possible. 2ASJ, 2XO and 2FA busy with arrangements for Urunga Zone Convention, they hope the day will be a success. A number of the some members are active on 10 and 20.

COALFIELDS AND LAKES
 2YU still active on 40 Mc. may break out on lower freq., has rig finished. 2AEZ picked up ACARF, makes him 118 countries—38 some post-war; report Europeans good in mornings from 6 a.m. onwards. 2AMU running 15 watts on 50 Mc. has worked 2OU in Canberra, 88 report. 2KE on 40 phone as usual. 2AIO at the Entrance is going but no news of 2OC doesn't seem so active these days. No news of 2TY. 2YU going again on 50 Mc. after some re-building. Maitland sports a new old Ham in 2AR. Nil from 2YO, 2PZ or 2MK this month. 2KY using some gear and "Clapp" oscillator. 2EZ has worked New Hampshire on 10 phone, only needs Delaware for W.A.S. Next using both half waves, four above four and works the States up to 9 p.m. on 10 metres. 2YL still re-building and hopes to be on in about six weeks. 2ADZ doing some band-hopping from 80 metres to 144 Mc., a new rig is being used on 6 with good results.

WESTERN ZONE
 2BT active on 40 and 20. 2WH getting his share of DX, collected VK1ADS on Macquarie Island. Zone Officer 2QA returned from holidays after doing the rounds of the shacks. Recommends the compatibility of 2AJP, put on two alone in Muswellbrook, nice work Elsie! 2XE active with a new Tx. 2IE entertained 2ACU over Easter, but couldn't get near the microphone, Rod had it in both hands. 2YVN been entertaining 2AQQ, Bill made a quick W.A.C. to show how to do it. 2DK been heard on 40. 2ACT will be training and no prospects of an early return to Ham Radio. 2ACU and 2WH made the Northern Zone's Convention at Urunga, they were invited to investigate the propagation properties of Lang "Nim". Don 2AIX is back again in Orange, was heard over Easter. 2JG active on 40, likewise 2DQ with a nice drop of Morse. 2II with family and caravans, was in Bathurst for the car races. Congrats to 2NS and his YP, will hear them both on the air soon. 2AFV had the bad luck to get across 1,000 volts. 2LY been doing a spot of recording on 50 Mc. for the W.I.A. v.h.f. broadcast.
 2LZ inactive, spends a lot of time star gazing these days. 2EF on 144 and getting down to town

from a badly shielded location. 2HZ been celebrating a happy event, has 167 up post-war. 2PH been talking compression with 2GS, so looks like some changes at St. Marys. 2AFO building new gear, his microphs going on 144 Mc. 2PI been trying 144. 2AOP back in Katoomba but not very active as yet.

SOUTH COAST AND SOUTHERN TABLELANDS
 During the month many of the some stations have been contacted, and think honours go to 2OW for the improvements effected to his equipment and signal. Much alterations to 2OW, result old No. 11 exciter has been replaced by a v.f.o. using "Clapp" and two class A isolator stages. Real is an 807 with 48 watts input, for speech two stage transformer coupled to p.p. 6V6—crystal insert completes the line up and the effect is very pleasing. 2MN passed through Yass enroute to the R.A.S. in Sydney. Has made a change of QTH, now at Young. Uses a AT5/ARS, will be a W.I.A. member shortly. 2AIX had some bad luck and ruined four tubes in his equipment, very badly regulated power supply in West Wyalong is probably the trouble. 2ALN contacted while using complicated antenna system, a new mike has helped the quality too.
 2AKE is very QRL, changing houses and believe to date no one has been luck in rushing the vacant house. 2PI at Hall has a double conversion super but will spend a lot more time on it yet. The latest piece of gear is a "command Tx as v.f.o. 2AJP has been run to earth and has some fine gear operating. v.f.o.—6V6-807-803 suppressor modulated by 1605-6L7-7B-6V6. Dynamic mike. 2OY of Goulburn has completed a "secret weapon" being we believe a Rx to end all Rx, no details direct but a little bird was active. 2WP, 6V6 triode into 807 with 60 watts, has a 6FO plate and screen modulating that input 2UK very QRL, doing a bit of unfortunate hatching, his YP is ill, we hope he soon recovers. 2ON active on 40 and 80, no details of gear. 2YH active on 20 according to 2WP. 2YV also DXing but not heard in Yass. Eric Fisher, Jr., soon to be one of the active Hams in Wgong. 2ANW at Balgownie on 40 with good phone signals using Dynamic mike, commercial linkage. 2QO active on 40 has a new car and plenty of work. 2AJS has completely rebuilt new rig using v.f.o. and 807 final, mod. pair 6V6s, all built into an AT5 frame, very compact. 2GU heard

working 2ALA but duty called and Arch had to "gallop" (to coin a popular phrase of 2WH). Congrats to Trevor 2NS and his YP, heard from many stations during their honeymoon. 2QA "The Voice of Nyngan" was heard from stations far removed during the holiday. Visitors through Yass during the month included 2MN, 2HT, 2ANK, and 2TH.

VICTORIA

A.O.C.P. CLASS

The Mornington Peninsula Sub-Branch of the Eastern Zone of the W.I.A., located at the Army Signals School, Balcombe Camp, is commencing a class for those desirous of the Mornington Peninsula of obtaining an A.O.C.P. licence.
 It is intended to bring students gradually up to the stage with theory, Morse and regulations that will enable them to pass the P.M.G. examinations. Prospective students are asked to contact Lt. Wright at the Army Signals School at Balcombe for further details. Commencing date for the class is 9th May at 7 p.m. in the Club Rooms at the School.

SOUTH WESTERN ZONE CONVENTION

Saturday and Sunday, 2nd and 3rd April, the gang of the South Western Zone held their Convention at Colac. Around the tables at dinner one could see 2BE, 2ASV, 2BI, 2H, 2AGD, 2AKH, 2AKR, 2PS, 2BU, 2QC, 2BQ, 2ZU, 2IC, 2SH, 2HX, 2ARK, 2AGV, 2APQ, 2YE, 2WT, 2AMP, 2ABE, 2BW, and 2UT; following visitors: 2ED, 2IE, 2DM, 2AML; others present were B. Sadler, C. Chumside, E. Giddings, D. Brook, B. Stokes, and R. Carter.
 Saturday afternoon the chaps rolled into the shacks as they arrived in Colac, Sunday the boys had a look over the broadcast station 8CS and I heard some have new ideas for their new rigs. From what I hear all enjoyed themselves, and thanks go for the good job the Colac gang did.
 Heard that 2YA is after an AR8B receiver when he goes to Sydney and is taking 2HV as bodyguard. Latest is that Bob has folded his dipole on 20 with good results, what about the gentleman's hand Bob, no hear.
 Heard that an eye bug has struck Ballarat as 2BI and 2ASV were in dry dock (bed) with eye trouble, looking where they shouldn't. Some good news from Ballarat gang is that 2PP works 10 and



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See also Outstanding Offer Page 2

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"HAM" RADIO SUPPLIES

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HAWTHORN, VIC.

PHONE—HAW. 4465

20 with many DX contacts, while 3APF only works on 20-100 countries up with four wave and 100, this time to P. 3. 307. 307. 307.

3ADL (ex-3BMB) building with p.p. 807s 100 watts and Bruce's receiver is still in VK9 land, so 3BW has it and it's BQ443. 3BW has a new QTH at Hawthorn but Don cannot come on the air as 3YL has his note to grindstone doing domestic work has had some DX. 3ARK works 80 and 40 when 3YL is in the air, but still fine. 3BQ on 40, 3APG has new v.f.o. 100 watt rig all bands. 3ALG had power train trouble but OK now, while 3AAT has fine signal.

3IO has active receiver, and 3BW on 40 c.w. with Type A Mark III. Neil has a 504 receiver, not a 440, sorry Neil for mistake. 3ZU had a bad cold, but with good results. 3SC came to see your scribbles 3UT and 3ZU when holidaying at Warrnambool.

3BU worked 3TO and 3ABA on 144 Mc. recently. 3BW also active on 3BA. 3BW was also working on 40 metres using a Type A Mark III. 3BW on 80 metres with AT5, working 3BU and 3ALG on 7th April.

FAR NORTH WESTERN ZONE

It was decided to start weekly code practice classes at a meeting of the above zone, held on 1st April, 1949. Attendance was good. 3OZ, 3PC, 3TI, 3I, 3MF, 3APF and Associates Herb White, Alex Smart, Jim Power and Kai Stanfield being present. Apologies received from 3NG. Weekly code practice starts on Wednesday, 6th April, with 3PC and 3I in it.

Zone President, 3OZ, who attended the State Convention, gave an interesting summary of proceedings on both days, also the night at Harry Kinners.

New Ham 3ACV (Ray) had a sorry tale to tell of a fractured neck. All we hope the TV note will be on the hand soon Ray. Associate Jim Power caused a few eyebrows to be raised and evoked a lot of interest when he produced a schematic of a huge hand-switched double convenience receiver, has designed. Beckons he has a big pile of coils and a five band switch so the soldering iron will run hot with a vengeance. Meeting closed at 10 p.m. when 3OZ and 3I had a long session over 3MP's shack, switches being pulled by 3PC.

3GZ has f.b. final completed, 895 and very solid job; should be making a few meter needles ere you read this. 3FO has the Type A Mark III at 3MP's QTH and gets choice DX bits on 40, at that time! When are we to come out and fell those trees?

3TI very busy man these days, re-build no further on, did you lose heart when the pole went over in recent month? Expect some 50 Mc. activity from 3TI. 3ALG has a new 300 Mc. vacuum tube receiver, 3MP cathode modulating 807, mainly on 40, hoping for bigger and better reports when Oregon pole goes up. 3ACF inactive, just having boat in hospital where he parted with the old tonic, all our sympathies. Tom; we wish you a speedy return to the DX. 3APF is proud, as proud of recently arrived lat harmonics; let hear that phone Fred.

WESTERN ZONE

Two pleasant surprises turned up during the month. First a nice long letter from 3FI, and later a visit from Ray himself while he was holidaying in the Grampians. He was pleased the way 3FI got out over the rocks. Ray's car has been busy moving into a new home and as soon as the new shack is built, a 50 ft. tower erected, and a four stage antenna erected, Ray will be back on the air. He and Byron had an interesting time getting 3TA's old three element 20 metre rotary and the 40 ft. telephone pole down to earth, however the job was done and the old three element now reposes in 3FI's shack.

Claude of 80D is Hochman's mystery man, but mystery or not he has done good work on 35 Mc. and now has all States. He is at present busy constructing 144 Mc. gear.

Len of 3AV is hampered by boarding house limitations and that base of country. Having a supply, however he assumes himself on crystal grids and as 3FI says, takes to it like an 807 to self-oscillation. A new member in Horsham is Alan Walter and when last seen was busy with a new holiday with a car load of wire and disposal gear; all of a dither to tear it apart. 3FI has also been busy adding with harmonics to the family, and putting finishing touches to the new 100 w. rig. The Class AB2 807 modulators at present are a little jumpy, but as Ray says some extra shodding round about will do the trick.

On our last some hook-up we were pleased to have VK3SAW with us for the first time. Watly is a new Ham and puts out a very nice signal. Indeed, 3ARK is building himself a v.f.o. and hopes to have it going soon. Bill is also putting a switch on the p.a. 3ARM has at long last lost his almost

perpetual Sunday morning QRM. Bob was on the verge of buying a new crystal set, but he has 3EP now has some competition as 3AWH is only about 200 yards away, so Ted will have to sharpen the old receiver or have a working agreement for different bands. For the benefit of a VK3 not 3TW rubbed a few Kc. off his crystal so if I now clutter up another net it can't be helped; but whatever happens chaps, if you can make it, don't forget the some hook-up—Season Sunday in Month on approximately 7120 Kc.

EASTERN ZONE

The main topic of conversation in the zone this month has been the forthcoming portable contest, and it seems as though a good percentage will be going portable. 3SS and group plan to take a large with all mod. cons., for camping over the week-end. The grilled steaks make one's mouth water at the thought of them. 3PR will be running the highest power, 10 watts to his Type 3 Mark II. The majority expect to operate with an input of between 4 and 6 watts. It is to be hoped that the weather decides to treat us kindly.

Our President, 3PR, has the a.c. on at last, and is now talking in terms of a three-stage 50 watt rig. 3DI at Leongatha reported a drop in line voltage when Ron switched his Type 3 on. Jim is expecting his new car any day, and has neglected his favourite hobby whilst fixing up a garage worthy of the object it is to house. 3SS gleefully reported receipt of a new light utility bus, and informed anxious enquirers that he will be keeping the old one. 3APF is apparently thinking in terms of a new car also—radio will be taking a back seat with quite a few of the zone.

3WE hasn't been doing so well with his calling in lately. There have been a few absentees in the hook-up. 3ACU has been too busy picking apples to do much operation. 3TI/US have also been busy picking, and clearing the block of trees not needed for the antenna farm, to have not done any ear-bashing except for the usual speak with 3DI, and a nightly snack with W6NAZ. 3CI was very keen about his cubical quad until he put it up. The best DX on 20 for the month was a QSO between 3OI and 3VI. 3IV is not on the air much—saving petrol for the holidays. 3OZ, contrary to expectations, is going to Metung for Easter, instead of spending the holidays on the estate. He plans to leave the rigs at home and you a Ham, Graham! 3QR finds 10 metre DX keeps him jolly occupied. He is after DX C.C. twice over. 3TH is operating from his new shack, and finds it much more convenient.

Mornington Peninsula Sub-Branch.—This sub-branch of the Eastern Zone of the W.I.A. has decided to hold a Field Day on 29th May (Sunday) to celebrate the first year of operation of the sub-branch at Balcombe Camp. The arrangements for the day include: Picnic lunch, bring your own;

Field Day on 3.5, 7, 50 Mc. and upwards; Hidden Transmitter Hunt on 7 Mc. band; Buffet Tea; good prizes will be given for various sections of the day's activities.

A cordial invitation is extended to all members of the Institute to come along and join in with the gang on the Mornington Peninsula. Members who have portable gear are especially asked to bring along their gear and have a chance of winning a prize. The location of the Field Day is the Army Signals School at Balcombe Camp. This day's outing promises to be a good "do", so come along and join the fun. 3KT or 3RK would like to hear from those who will be attending, so that catering arrangements can be finalised.

NORTH EASTERN ZONE

3UI has built a new modulator and DX has been better since. 3APF still getting out on ten and now has new 100 watt rig going on test. 3ACK busted a big end on his car driving home from the Convention. 3KR has been working DX on 40 and 20 metre c.w. 3TS has had a holiday trip to VK2. 3GD doing well on ten phone now. 3TY is still very ill, and in hospital. 3ACW is building for ten. 3ABG burnt second generator out.

QUEENSLAND

The general meeting for the Queensland Division met on the 14th March in the Elizabeth Street Rooms. In the absence of the President the chair was occupied by 4KB. Attendance was poor on account of the wet weather. The Agenda Paper for the Federal Convention was discussed and our delegate, 4ZU, was given the necessary instructions.

Copies of the VK4 Constitution are being made and each financial member of this Division will receive his copy in the near future. Membership Certificates have arrived and provided the President does not break down with writer's cramp, all members should have received their certificate long before these notes are published. At the present time approximately fifty per cent. of the licensed Hams in VK4 are members of the W.I.A. Of these, approximately fifty per cent. are country members.

Arrangements have been made for instruction for our students in theory and c.w. Transmission of Morse practice will be made over 4WI on a frequency of 3504 Kc. at 7.30 p.m. on Tuesdays. Students and Hams wishing to brush up on their code should line up to the Sunday morning broadcast of 4WI for further announcements.

Station manager 4FN announces that 4WI will be operating on 7100 Kc. with s.a.c. in the immediate future and reports would be welcome.

At the present time 27 members are making good use of our circulating library. Once again we request subscribers that books should be returned to the librarian as soon as possible.

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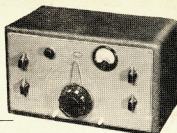
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The following is a list of Council Members and their official positions in VK5 for 1949:—President, H. Austin (6AW); Vice-President, P. Wretford (6DW); Treasurer, G. Bowen (8XU); Secretary, E. Barber (6MD); Asst. Treasurer, B. Austin (50A); Asst. Secretary, T. Laidler (8TL); Programme Organiser, R. Kelly (5LW); Disposal Manager, G. Ramsey (6GD); Membership Organiser, J. McAllister; Associate Representative, J. Farris; Publicity Officer, W. Parsons (5PS).

Now for the Mr. Gumbler notes. 5CJ is in the throes of house furnishing and is beginning to wish that he had taken "up cabinet making as a hobby! The a.c. mains are creeping slowly but surely towards the QTH, and I am glad to know that the YF still thinks Ham Radio is OK. 5MS is now using a "T3" type aerial (I don't know whether the name has anything to do with the note). However it seems to be working OK as lots of DX are having their first QSO with 5MS. He has also fitted hand spread to his ARS and automatic feed control to his transmitter.

6RU has been trying himself out on 20 c.w. lately. He also carried out a few modifications to his No. 4 receiver. 6FD, as anticipated, is now on a.c. and finds that he is getting a much higher voltage to his electrolytic condensers. He claims that one well known make of electrolytic condenser is much better than the "bombs" we used to handle on 6th November. His beam is now on 40 and 20 metres while still building his new gear.

5CJL has not had very much time for Ham Radio this month. Has been very busy at the "erg" (no relation to 5KU) factory as acting manager. Has kept the cobwebs from his gear on 20 and 40. He also has a very elaborate system of relays ready to go into action. 5JA roasting on his past efforts, I think. He would like me to tell all the v.h.f. experts that he has a crystal controlled transmitter on 6 and 8 metres, a beam on each band and also a good receiver on each band just waiting for some signals. 5TW still concentrating on 10 c.w. using a Thecal series. Theresians are still on 40 phone soon. 5CJ has completely re-built the receiver incorporating bandwidthing from 30 Mc. to 550 Kc.—now on 280 volt a.c. using 1625 in p.a. modulated by pair of 6V6s.

"Dorothy Dix!" Parsons is still in business and I received a letter from "Harassed Parent" seeking my advice. He gave his call sign and QTH which makes it all "fair dinkum." "Harassed Parent" wants to know how he can stop his one year old baby from howling every time Daddy makes a move toward his shack to go on the air. Boy, oh boy, is this one right up my "Bolevarde!" My, with fourteen children, I'll say. If baby starts to cry, then go and get a small hairbrush and gently stroke the little ———, sorry folks, stroke the little darling's hair very softly backwards and forwards in a soothing motion. Should the sweet little thing stop within fifteen minutes, then reverse the hairbrush and the hairbrush and go to it. It never fails!

Although I am on holidays and determined to "loaf" and do no more work than I can help, these notes don't seem very representative of VK5 and I am puzzling my brains (or what passes for brains) as to what I can tell you dear readers. I could tell you what "Doc" Barber (5MD) said when he received a phone ring from an Inmate Associate Member who wanted to know where his receipt for payment of his membership fee had gone to (after all "Doc" had had the letter 24 hours), but the Editor wouldn't print it anyway. I could tell you the real name of the Amateur with a KQZ prefix named Bongo Bongo, living in a light-house in the Pacific (His job was to light the kerosene light at sundown, and blow it out at dawn), but I dare not; and I could even tell you why George Ramsay (5GD) only counts up to five when testing, but you wouldn't believe it, and I list but not leave, I could tell you what Ross Kelly (5LW) said when on his recent fishing trip a crayfish put a strangle hold on a certain part of the anatomy of Ross, but it would burn the paper (and it was not "confound it"!). So there you are, I have tried to think of something — it is no good, so the best thing I can say is — for the benefit of those who have just joined in, please turn to the back page of March "Amateur Radio" and read, mark and inwardly digest — YOU BEAUTY!

WESTERN AUSTRALIA

The March meeting was held on the 15th (third Tuesday). There were 41 members present, among whom were two newcomers, namely, 6LL and 6KU. Congratulations are in order for Frank Taylor, now proud parent of his A.O.C.P., and of course call sign coming up.

Our Secretary 6AG, being in VK3 on business, 6KX took office. We also noticed that 6WH is our President for the coming year. 6RO was issuing receipts for things called subs, March being the commencement of our financial year. All "non-members" please note!

6FC, our Emergency Network Officer, gave the good oil from communications with our local Wireless Division, and we are now awaiting sanction of the P.M.G. to carry on with the organisation. In conjunction with the emergency net, a field day contest has been proposed for Easter Saturday, 16th April. Greatest interest is being taken in the field day and it is hoped the weather will stay fine until after that date. By the time you read this, you will have had it, so listen to VK6WI for the results. A Contest Committee was elected to organise contests in VK6 and to make known all information of contests being organised throughout the world in which we can participate. 6NL, 6FL, 6CM, 6DD, with 6RU representative to Council, form the Committee whose first work is our Easter Field Day. They will also be responsible for awards.

Both 6RU and 6RW voiced opinions relative to the Remembrance Day Contest, and our representative to the Convention, 6GM, is well briefed on the subject.

After the usual rag chew followed an informal discussion on "V.F.O.s—Their Use and Abuse," conducted by most members present. Quite a few words were aired and long pen-up passions calmed so now we know what the other half think!

"Piggy-back" QSOs also came into the subject and with 6WH as M.C. we listened to an instructive and informative debate. 6GM was to have given a lecture—we don't know what it was to have been about, but he never had time to give it anyway. 6UDW was a visitor from Broome Rock and was pleased to make many personal contacts with Perthites he had worked. The meeting closed at 10.30 p.m.

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PERSONALITIES

6DJ is developing a new Ham slangage. We hear "modgies" and "coenies" and wonder if Bill is looking for a new fat, with all mod. cons! Also from Curliemoe 6VZ who plays the 7 Mc. truck. Did it run after the mike lead Dick? What about 6BS with his VF08BFMCQ? (anagram for 6ELW)

6ELW has his rig on 7 Mc. again. That's a big jump from 5 Mc. WZL. Hear that Grace and Wally 6WJ are doing their show on 14 Mc. Have you heard them on 2Ls and ZS have their beams on you two in Albany? 6MG was the only VK6 on the air during the Perth black-out. He had 7 Mc. band all himself. 6WJ was pleased to contact a ZL on 7 Mc. the other week-end. Should be more of it Don!

6SNW, with his "Clap" oscillator as v.f.o., is scoring lots more contacts. What's the DX C.C. score now Norm? 6WP putting out a signal after all these years. We hear that Bill has 100 watts hooked up to his 7 Mc. rig. 6WJ is a swinging em loose Bill! 6WS very active on all bands lately. We know Skipper has a good site for the next field day. 6DX was in town recently after a tour of the S.W. with Mrs. DX. It was about time you collected those QSLs Bill. Did you get one from 6WH?

6LH is coming back to life again. Good show Stan—what about 6MH too? 6AR has things on the air from Hall's Creek. Alan likes the lack of local QRM. 6BK broke through to break into 14 Mc. on 14 Mc. Doesn't happen often enough does it Bert? 6MW has promised us bigger and better signals. It's about time Bill struck his old form. 6WJ came down to Albany and Perth for a holiday. As soon as Ray gets home he works a stack of new countries—wonders what he has missed being away. 6HJG is back on the regular on 14 Mc. 6PETER has a v.f.o. on the way now. 6TP in his new home at Mt. Hawthorn will have his rig on the air just as soon as he lays it out. 6WJ is a good one. What about 6MB has joined the regulars on 28 Mc. now that the South Americans are breaking through. 6LL permanently on 28 Mc. lately—what about getting that v.f.o. going Charlie?

6FR is finding a little more time for Ham Radio these days. 6HW had a very large amount of signal on 14 Mc. the other day. 6WJ needs a new receiver Harry? 6EL scoring some nice DX on 28 Mc. How's the Petermaritzburg situation Ern? What about putting 6GCN on the band? Also hear that DX is coming back to 6HJG. Chas has his DX while DX is away, OK?

6KE hooked an aircraft in flight. That's a good effort Keith, but how? 6DD has been collecting some Europeans on 28 Mc. 6DD also getting his share on that band. 6KU did like being top of the list last month so his "bottom-up" this time Ray?

TASMANIA

The April general meeting was held as usual in the Royal Photographic Society Room (sounds good doesn't it). Only about 20 members were present, but a good show considering the weather. There is so much business in the shape of the Federal Convention Agenda to be discussed. What about it chaps, the Committee desires your thoughts and ideas on these matters too!

Our worthy President 7LJ and 7XA told us of a publicity stunt that had been conducted through the courtesy of commercial station 7BO (I think 7BO is a good idea) and with the help of the recording of the doings. Nice work Charlie and Lon—just the stuff to give the troops. Melhinks we could do a lot more on these lines and so build up a bigger and better Division.

On Sunday, 10th April, we held a Field Day and it took the usual form of a d.f. hunt. Yours truly was in the of it, but the weather was not so good (had of getting in first) and was closely followed by Barney Watson, Lon Jensen 7LJ, and then Crosby Walsh 7E.

The transmitter was situated at Howrah, only about eight miles from the starting point, but even at that it was a very creditable effort. Barney—25 minutes just about constitutes a record. I think it is about time we introduced a handicap system, possibly weight of man for age (or car) and then might get a go myself.

Hear that newcomer 7KA is frantically building his rig for the short time he can be heard occasionally on 7 Mc. using a Type A Mark III. Nice going Ken, I hear the new rig is an example of HOW to build a rig.

Saw young Brian Hall in camp with the Citizen Army the other day, having a whale of a time with a 128 set. Brian has passed the A.O.C.P. and he knows it. He knows it. He knows it. How about it Brian—since you were on the air?

Sleepily turning the dial over the 14 Mc. band a few evenings ago, I heard 7SK calling CQ—no CQ DX—I don't know who was more surprised, Max, myself or the OZT who came back and gave him 5-7. Nice work Max out of the blue, that one, for a phone contact.

I have very much pleasure in reporting that 7SK won the phone section of the National Field Day Contest. A very creditable performance for a new Ham. Max had been on the air, exactly 30 days prior to the Contest. The rig used was finished only a few hours before starting time, it consisted of two No. 19 generators for the power supply, the two 500 volt windings in parallel for the p.a. one 275 volt tapping for the exciter and the other for the modulator. A 12SK7 c.e., a 6V6 buffer, a 6V6 doubler, and a 1A2S in the final, comprised the transmitter, whilst the modulators were a pair of 6X4s with the usual speech line-up, plus a dynamic mike.

The whole "caboose" as Max called it, had an input of 6.5 watts, from two 6 volt batteries, fed into a vee beam, via a random length of twisted power-lead. The vee beam, which was the work of Sid 7SL, had 120 feet long, 35 feet high, spread at 80 degrees. The station was located in an apricot orchard at Howden and it is rumored that certain people won't eat apricots again. That's all for OMs, don't forget to let me have your news and views you would like to see published.

NORTHERN ZONE

The usual monthly meeting of this zone was held at the Wills & Co.'s room on Friday, 8th April. There was a large attendance of members and the evening was taken up with a discussion on the agenda paper for the Annual Federal Convention.

Most of our members have been very inactive during the last month, this was possibly due to the poor conditions on the bands. Even the 144 Mc. operators have been very quiet, the exception being 7BQ who has built for himself a very nice crystal controlled rig which is performing admirably with output and quality comparable to Len's 7 Mc. transmissions.

DX has appeared to me to have been very poor, however 7KB informed me that conditions on MC. have been excellent for the African continent from 0100 hours onwards, Ian has worked many

countries on the dark continent that I haven't even considered as possible, even in my wildest dreams.

According to previous years, Central and South American stations should have been breaking through during the evenings of February, March, and April, however it has only been lately that this direction has been snidable of an evening at all and during the last week XEs, KP4s, TMs, PTs, LAs and VP1, 4, 5 and 9s have been heard at good strength. Best QSOs from here were VP4TB, who worked quite a few VKs on the evening of 11th April on 14010 Kc., and KSAJL on 14.1 Mc. at 2100 hours.

On phone VK1AIBs has been a good contact and was worth the battle to those managing to get through the din. Incidentally, Ron informed me that in future he will not answer anyone within 10 Kc. of his frequency.

28 Mc. has been very patchy with the ZLs appearing to get most of the plums. European stations have been fairly good of an evening up till approximately 10 p.m. and towards the end of March the Africans came through one Saturday afternoon and gave 7BK some good phone QSOs. Last weekend Ray worked five continents on 28 Mc. phone.

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VICTORIA

50 Mc.—There has been more activity on the 50 Mc. band this month than last, mainly due to the fact which shown in 576 and previously every night stations are to be heard carrying out cross band tests. Some sporadic E openings have also helped to keep the band busy. 7SK was heard by several stations at 89 but no contacts were made. Next, between 2000 and 2100 on the 21st, the VK1s surprised appearance. VK3TR in Yinnar worked VK5RT, 5AJ, and 5RV; VK3DI in Leonnath worked VK5RT, 5PR, and 5RV, and several Melbourne stations had contacts with the VK5s. The next night VK4HR was heard for a short time, while on the evening of the 23rd the VK5s again came through, although this time signals were not so good and not many contacts were made. After these openings there was a lull until the 3rd of April when VK3DA heard 2HG working a VK7 at 2100.

3U1 at Tatura is on the band every Saturday evening looking for (and contacting) Melbourne stations. 3AFP in Shepparton has his new rig going and has worked 3AL1 in Rod Hill with good results. 3HZ has his gear going but lacks a suitable antenna at the time of writing.

144 Mc.—There is not much to report this month, mainly due to a drop in activity on the band, the reason for which is not known, since so many chaps have gear for the band. How about getting on a bit more often?

Two new stations have appeared on the band. The first is 3PD, who is using a 6A6 c.e. and a doubler with an 8 Mc. crystal, 616 tripler, R824 tripler, and 815 final with 40 watts input. The second is 3GZ, who is using a 6A6 c.e. and an oscillator. Albert has not had time to put up

an indoor antenna yet, but judging by his signal from an indoor dipole he should be one of the best on the band when he does. 3AML is using a 522 transmitter, a modified 522 receiver section, and a dipole 20 feet high. Ray is putting out good signal and has materials on hand for a stacked beam.

21LH has constructed a 24 element beam (12 driven elements and 12 reflectors) and has been busy testing it up for best results. He has not had it on the air yet, stations near by are reported to be replacing their aerial coils with ones wound with 18 gauge wire.

3ABA and 3YS have their new 30 and 144 Mc. rig with an 829B final working now. They run 90 watts when they have finished their new modulator using class B 800s. Needless to say they have a sign worthy of such a rig.

3ARE has new receiver called BL4 and it's hot from what Ed tell the boys on 14.4. He is putting up a new 12 element rotary beam on top of 60 ft. stick. Other day 3ARE worked 3ALZ, 3ANW, and 3BU with S5 to S9 signals. 3BU worked 3ANW, this is Bill's best DX, a distance of 85 miles. 3AT worked 3ARE, and 3ED with good signal reports both ways. 3EQ has started on 144, also 3ZU and 3UT will be on that band soon looking for good results. 3E has heard that 3ARE is interested in 144 Mc. also.

576 Mc.—This band has been receiving a great deal of attention in Melbourne. Not many contacts are being made as yet, but many chaps are busy building gear for this frequency.

3NW has re-built his gear to a more satisfactory form. He now uses push-pull RL18s with plate and cathode lines for the transmitter and a super-bowl receiver using a 3C4C lighthouse tube, which seems to be very sensitive. The gear is built with

portable equipment in mind and some interesting tests should be carried out. 31M has heard 83W from his home location using an ASB receiver, kindly loaned by Len Allen. Signals were 85 and 84 on 40 ph. The 84 was a duplicate as 85 was on 40 ph. In a hollow and there are several high hills in between.

3MD has been carrying out tests with a transceiver using a 955 with half wave lines, and has had success to date. 3RR has constructed a converter using an RL18 mixer with a co-axial grid circuit and a 955 oscillator. The output is on 140 Mc. and fed into an ASV receiver. Dick has been able to hear 3XA but has not finished adjusting it at the time of writing. 3CR is building a somewhat similar converter but using a 955 mixer and a 604 oscillator using harmonic injection. (It appears that this gear would be the basis for some good technical articles—Editor.)

3XA has tried a converter using a 636 push-pull mixer and 636 oscillator with fairly good results. However the grid line in the mixer was rather short and a new converter is being built using GL446A in stages, 955 mixer with co-axial line grid circuit, and push-pull RL18s as the local oscillator. Don hopes to have this set up working in the near future.

3EH is also building a transmitter using RL18s and will probably use a converter for receiving. 3DA has an ASB receiver of the type using GL446As as r.f. stage, mixer, and oscillator, which he is adjusting for the band.

At the April v.h.f. group meeting John Belcher exhibited a crystal calibrated for 576 Mc. using EP50s multiplying from 4 Mc. crystals and an output circuit stage. This will be available in the future for adjustment of receivers.

To help along the activity on the band and make sure that chaps do not give it away soon after getting their 3XA, the group has decided to very fine gesture of donating a pair of 34Gs as a prize for a 576 Mc. Contest. This will run from 30th June to 31st December inclusive. The score will be the number of contacts. This will multiply the number of contacts by total number of miles worked. Only two way contacts on 576 Mc. count, and only one contact may be made on the frequency is permissible, unless location has been changed.

QUEENSLAND

Very little activity is reported on 50 Mc. on the 30th March. Copy the 30th hours of the 30Q, whilst 4HR made contact with 3PQ. 4HD also heard 3PQ and 5MP, whilst 4BT worked 5MP. 4HD and 4BT keep regular about on 50 Mc. whilst 4CU heard 43KX and then cut out. Very little activity is reported from the Brisbane area.

On 144 Mc. the only activity reported is that 4ZU and 4FN of Brisbane are holding Sunday night sittings with 4CH of Ipswich.

SOUTH AUSTRALIA

3RP using crystal on 44 Mc. with beam antenna. 3RP is present using super regen but has converter under way. 3LP also on the band but does not appear to get down this way. 3GF has nice new crystal rig on the band. Was recently at Kingston. 3RP is working the grid at the 30th March. Max's rhombic just did not do the trick. 5GL still the mainstay of the band with his dual transmissions on 50 and 144 Mc. Wouldn't be surprised to find that it was a simple transmission—heard making an attempt to get on 238 Mc.

3QR works cross band. 3JD also works cross band. Claims he can work more stations by this method. Can copy the 30th mod. oscillators on present set-up. Anyhow mod. oscillators have had their time on 144 Mc. 5NG has max-size beam on the band. Is still interested to see how it works out. 5GY recently been threatened to try to get on 50 Mc. assure you, OM, there will be plenty of interest in the City, with beams lashed down NORTH (or thereabouts).

WESTERN AUSTRALIA

In spite of constant watch on the band in Perth by 6LW and 6FO, no DX broke through during 30th March. Nor was it Adele's Radio Range audible. Adele's Radio Range in Queensland and N.S.W. were often heard at various strengths. However, news from 6DW at Bruce Rock indicates that the band is quiet. Adele's Radio Range in N.S.W. was heard two signals, and at 1850 worked 5HT 80 89 both ways. At 1900 he worked 5CR and 5ST. At 1913 he worked 6LW and then 3QR. 80 89 was weak. At 1915 he worked 5K2 working 6WG in Albany—then 6DW worked 5CR again. On this particular evening 6FO was at work, but 6LW heard nothing in Perth.

Have received no news from 6DW at Albany or 6GM Kalgoolie. 6GS at Harvey still battling to get a 6 metre signal into Perth. He can read signals from Perth up to 85 on phone. The same remarks apply to 6DW at Bruce Rock.

TASMANIA

Southern Zone.—It would appear that with the cessation of 29 Mc. activity, the changing and doing are at a standstill, at least in the South. However, it is hoped that with the appearance of a couple of signals on 144 Mc. interest in our v.h.f. band may be stimulated. To this end, both 74J and 7DH are working on gear for 144 Mc. 74J is on the air with an SCR522 at present, although 7DH is working on a suitable receiver. It is understood that this position is soon to be remedied.

7BM and 7GC are having lots of fun with problems and rishook receivers on two metres, but even this activity has been brought to a sudden halt by 7AL succumbing to an attack of appendicitis. Tough luck Bill OM.

7XA, when last seen, was wrestling with numerous fearsome looking pieces of iron which he swears, when assembled, will make up the rotating mechanism for a ten metre beam. Apparently those nice, shiny, silver plated, little bits and pieces of v.h.f. equipment seen reposing on the 7XA shelf, will have to stay there for the time being.

With chin on one hand and 719ds in the other, both 71J and 7BJ are contemplating building simple equipment for 144 Mc. There must be lots of the gang with similar ideas, who are only waiting for someone to start the ball rolling. What about it chaps? A scratch in the junk box, an evening or so work with the soldering iron, a trip up on the roof to erect the dipole, and we have something to listen to in these vast empty megacycles of ours.

Northern Zone.—7BQ is now using a crystal rig on 144 Mc. with an 815 in the final, still wants some more drive. He is also still playing with converted 7NL has been trading 7000s and 9000s so we may see him on soon. 7TE is not very active, but building an I.F. strip for superhet, whilst 7DE has his super working at last to his satisfaction. 7MC is out of commission. What about it Ernie?

Got it from a roundabout source that 7AM is building a crystal rig for 144 Mc. Has not been on for some time now, must be five months. Len Peter Prith has been working on 144 Mc. receiver still, and can now hear aircraft on 122.1 Mc. 85 at 52 miles. Also has added an 8 meter and plans to add a 2nd i.f. for 144 Mc. 7AM is also planning to put up a fixed beam to Melbourne in the hope of a break through on VK3 next summer. There is no activity on 50 Mc. now, the entire lot being on 144 Mc.

CORRESPONDENCE

SUPPORT FOR "OLD HOMBER"

Editor "A.R." Sir,

"Canaille's" reference to "Old Homber" as intolerant ought not to go by without some protest. Surely to infer that a man is intolerant for championing the cause of correct diction, is equivalent to inferring that the traffic laws are intolerant, where they punish a man for a traffic breach.

The same may be expressed as "I am, I've just come in, I've just did it, I done it" and so on, is one of the ugliest things present on any phone band. Furthermore, it is something that can be avoided, with a little care and observation. That this is so, would be obvious, if the person concerned, was to spell the phrase out on the key or to write it down. In the majority of cases the correct grammar would be used.

The use of correct English speech does not depend on a high standard of education, as "Canaille" suggests, but upon observance of the speech and writing habits of the majority, combined with the knowledge provided freely by the public education systems, to all and sundry up to the age of 15 years.

Any Amateur who has sufficient knowledge to gain his licence, who can talk with a sloppy diction, has every cause to be thoroughly ashamed of himself, both on the air and off.

—G. E. CAMERON, VK4GQ.

Editor "A.R." Sir,

"Canaille" appears to consider lack of erudition a prime virtue, and coupled with his statement that the 30th's English was written to be mortified, an Amateur Radio, avours of a mental outlook as archaic as it is difficult to reconcile with his avowed interest in a modern and exacting science.

His assumption that "Old Homber" is a critical, cantankerous old gentleman without a vestige of humour can hardly be based on the article in question, which (to the credit) shows a sense of quiet humour, and constructive and witty, and is not at all intolerant. "Canaille" might ponder on the thought that there is a vast difference between being "intolerant" and "being unable to suffer fools gladly."

To say that education is a curse to many, is merely repeating some worn out cliché that has been heard on reading rather than a learned outburst. After all, without education, there would be no Amateur Radio, and surely if one can absorb the technicalities of the science, it should not be too difficult for the same brain to absorb the elementary principles of the King's English, and of decent enunciation.

A few hours spent in pursuit of that knowledge would eventually pay the student and Amateur Radio generally far more handsome dividends than a lack of education.

In other words, "Canaille," what about growing up?

—"ARISTO."

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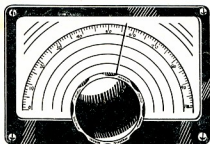


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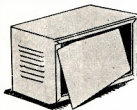
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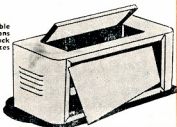
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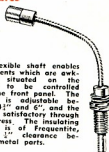
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